Conference Preliminary Program

Tuesday, March 13, 2007	
8:00 am to 9:00 am	Registration and Continental Breakfast
9:00 am to 9:15 am	Welcome
9:15 am to 9:30 am	Conference Introduction
9:30 am to 10:10 am	**Keynote 1** – *Dan Frayssinet*, DP Technology
10:10 am to 10:30 am	Coffee break
10:30 am to 12:10 pm	**Session 1: Smart Optimization of Machining Systems** P1: Process Monitoring of Turning and Model Adaptation for Smart Machining Systems. Heigel, J.C., *Ivester R.W.* P2: Production Process and Inventory Management for Machine Tool Companies: Analysis and Development of Optimisation Models *Bruzzone A. A. G., Lonardo P. M., Rossi E.* P3: An Approach for the Optimization of Machining Parameters Under Uncertainties using Intervals and Genetic Algorithms. *Vigouroux J. L., Deshayes L., Foufou S., Welsch L. A.* P4: SMS application for reduction of machining cost during a multi-process manufacturing plan. *Rigal J.-F., Mabrouki T.*
12:15 pm to 12:45 pm	Poster Session
12:45 pm to 1:30 pm	Lunch
1:30 pm to 2:10 pm	**Keynote 2:** Modeling for High Performance Machining *Kerry Marusich*, Thirdwave Systems
2:10 pm to 5:00 pm	**Session 2: Smart Machining Systems** P5: Cutting Power Model-Sensor Integration for Tool Condition Monitoring. *Jerard R. B., Xu M., Fussell B. K.* P6: Dynamic Metrology Tool to measure the elastic deformation of Parallel Kinematics Machines. *Cano T., Béarée R., Ray P., Lavest J. M.* ***Coffee Break*** P7: Novel Linear Magnetic Bearings for Feed Axes with Direct Drives *Schmidt A., Brecher C., Possel-Dölken F.* P8: Use of informative potential of the electromotive force to evaluate cutting conditions *Matviyenko A.* P9: Logistic Regression-based Machine Health Assessment Method on Application of Smart Machine Tool. *Liao L., Huang B., Lee J.* P10: Isogliden-TaRb: a Family of up to Five Axes Reconfigurable Fully-Isotropic Parallel Kinematic Machines. *Gogu G.*

Wednesday, March 14, 2007	
8:00 am to 8:30 am	Continental Breakfast
8:30 am to 9:10 am	**Keynote 3:** Developments and Trends in Standards from Enterprise to the Shops Floor. *Steven Ray*, The U.S. National Institute of Standards and Technology
9:10 am to 12:00 pm	**Session 3: Knowledge and Information Modeling for SMS** P11: A Framework for Intelligent STEP-NC Controller Based on Multi-agent *Hongbo L., Chengrui Z., Riliang L.* P12: NCML: An XML Based NC Programming Language. *Jerard R. J.* ***Coffee Break*** P13: Process Visualization - The Sequel to NC Verification. *Esterling D. M.* P14: STEP-NC: Smart Data for Smart Machining. *Hardwick M., Loffredo D* P15: An Integrated Framework for Diagnosis and Maintenance of Machining Systems *Deshayes L., Mihoc A. G., Hamand X., Maire R., Kouiss K.* P16: Parametric Maintenance and Control of Vibration while Deep Hole Drilling *Gouskov A. M., Panovko G. Y., Voronov S. A., Sinha S.C.*
12:05 pm to 12:45 pm	POSTER presentation
12:45 pm to 1:35 pm	Lunch
1:30 pm to 2:10 pm	**Keynote 4:** Interoperability Requirements for Smart Machining Systems – from Sensors to CAD *David Dornfeld,* The University of California Berkeley
2:10 pm to 5:00 pm	**Session 4: Smart Machining Processes Modelling and Control** P17: Process Modeling of High Speed Cutting using 2D FEM *Altan T., Al-Zkeri I., Sartkulvanich P.* P18: Design and Analysis of Variable Micro-Edge Tooling for Machining Using 3-D Process Simulations *Karpat Y., Özel T., Sockman J., Shaffer W.* ***Coffee Break*** P19: Flank Millable Surface Design in 5-Axis Machining. *Li C., Bedi S., Mann S.* P20: Contact-based Collision Detection - A New Approach to Avoid Hard Collisions in Machine Tools. *Rudolf T., Brecher C., Possel-Dölken F..* P21: An Investigation of Uncertainty in Impact Testing *Kim H. S., Schmitz T. L.* P22: Rolling ball method for 3-1/2-1/2-axis machining *Roman A., Bedi S., Ismail F., Heyer J.-S.*
6:30 pm to 7:30 pm	Reception
7:30 pm to 9:30 pm	Dinner

Thursday, March 15, 2007	
8:00 am to 8:30 am	Continental Breakfast
8:30 am to 11:20 am	**Session 5: Machine Tool Performance Characterization and Metrology** P23: Intelligent workpiece set up in Micro pattern machining on large surface *Kim, J. S., Yang M. Y., Choi J. G.* P24: Machine Tool Accuracy Quick Check in Automotive Tool & Die Manufacturing *Omari M., Ajao D., Kampmann G. G., Schmadei I.* P25: Compensation of Tool Deflections with an adaptronic milling machine *Denkena B., Möhring H. C., Will J. C.* P26: A Real Time System for Tool Wear Monitoring in Turning Process. *Bruzzone A. A. G., Lonardo P. M., Traverso A.* ***Coffee Break*** P27: Compensation of Lead Errors and Elastic Deformations in Ball Screw Drives. *Kamalzadeh A., Erkorkmaz K.* P28: Real-Time System Identification for Impact-Based Part Positioning *Mears M. L., Falcon J.*
11:20 am to 12:00 pm	**Keynote 5:** What is Smart? *George Hazelrigg,* The U.S. National Science Foundation
12:05 pm to 12:45 pm	POSTER presentation
12:45 pm to 1:30 pm	Lunch
1:30 pm to 2:45 pm	**Session 6: Smart Components and Virtual Modelling** P29: Constrained Identification of Virtual Drive Models using a Genetic Algorithm. *Wong W., Erkorkmaz K.* P30: Adaptronic Chatter Damping System for Deep Hole Drilling *Weinert K., Kersting M.* P31: Simulation of Surface-Microstructures Resulting from Milling Processes *Weinert K., Ungemach E., Surmann T., Mehnen J.*
2:45 pm to 3:25 pm	**Keynote 6:** Methodology and Tools for the Integration of Manufacturing Processes during the Collaborative Design of Systems, *Serge Tichkiewitch,* Laboratoire 3S Grenoble France
3:25 pm to 3:30 pm	Conference closure
3:45 pm to 5:30 pm	NIST Tour